REMARKS

Applicant respectfully requests reconsideration of the pending claims. Claims 8, 15-16, 20-22, 26, 28, 35, 39-41, 45, 85-87, 89-90 and 96-98 are currently pending in the application.

35 U.S.C. § 103 Rejections

Claims 8, 11, 15-17, 28, 31, 35, 36, 85 and 86 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2005/0186873 issued to Wang et al. ("Wang") in view of U.S. Patent Publication No. 2005/0204477 issued to Casella et al. ("Casella").

Claims 8, 28 and 85 include, among other things, a chemical composition comprising a fluoroalkyl acrylate copolymer having a concentration ranging from about 4.5% to about 9% by weight of the chemical composition, a pore resistance composition having a concentration ranging from about 0.46 to about 0.65 parts by weight for each part of the fluoroalkyl acrylate copolymer, and a crosslinking composition having a concentration ranging from about 0.60 to about 0.80 parts by weight for each part of the fluoroalkyl acrylate copolymer. Amended claim 86 includes, among other things, a chemical composition comprising a fluorochemical having a concentration ranging from about 4.5% to about 9% by weight of the chemical composition, a pore resistance composition having a concentration ranging from about 0.46 to about 0.65 parts by weight for each part of the fluorochemical, and a crosslinking composition having a concentration ranging from about 0.60 to about 0.80 parts by weight for each part of the fluorochemical.

The Examiner suggests that Wang discloses a composition with a fluorochemical having a concentration ranging from 1 to 5% and a cross-linking composition having a concentration from about 0.05 to 0.8 parts by weight for each part of the fluorochemical. The Examiner admits, however, that Wang does not disclose a fluoroalkyl acrylate copolymer and the quantifiable relationship between the pore resistance composition and the fluorochemical. Instead, the Examiner claims that Casella discloses a fabric treatment containing a fluorochemical having a concentration of 5 to 30% by weight of the treatment with a hydrophobic agent (pore resistance composition) having a concentration of 0.5 to 60% of the

treatment, providing a pore resistance composition concentration of "at least 0.1 parts by weight for each part of the fluoroalkyl acrylate copolymer." *See*, Office Action dated July 12, 2006 at 3-4.

The Examiner claims that it would have been obvious to have made the fabric treatment of Wang with the compositional limitations set forth by Casella. *Id.* at 4. However, the Examiner has failed to establish a *prima facie* case of obviousness. The MPEP states that the requirement of unobviousness is no different in chemical cases than with respect to other categories of patentable inventions. *See*, MPEP 2144.08(II). The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness. *Id.* The Federal Circuit has specifically declined to rule that a disclosure of a chemical genus, regardless of how broad, renders obvious any species that happens to fall within it. *Merck & Co. v. Biocraft Labs. Inc.*, 874 F.2d 804 (Fed. Cir. 1989).

To establish a prima facie case of obviousness in a genus-species chemical composition situation, it is essential that the Examiner find some motivation or suggestion to make the claimed invention in light of the prior art teachings. *See*, MPEP 2144.08(II)(A). The mere possibility that one of the compounds could be modified or replaced does not make the claim obvious unless the prior art suggested the desirability of such a modification or replacement. *Id.* Here, there is no such suggestion or motivation to combine Wang with Casella in the way suggested by the Examiner.

Casella discloses the benefit of a fabric treatment that includes at least one zeta potential modifier. *See*, e.g., abstract. The fabric treatment may include a fluoropolymer having a preferred range of 0.5 to 60% of the treatment and a hydrophobic agent (which may include hydrophobic waxes, such as paraffin wax) having a preferred range of 0.5 to 60% of the treatment. *See*, e.g., paragraphs 0026, 0031. Given the extremely broad ranges for both of these components, it would not have been obvious for one skilled in the art to select a very small subset of both of these ranges--namely, a fluoroalkyl acrylate copolymer having a concentration ranging from about 4.5% to about 9% by weight of the chemical composition *with* a pore resistance composition having a concentration ranging from about 0.46 to about 0.65 parts by weight for each part of the fluoroalkyl acrylate copolymer (which equates to a range of about 2.07% to 5.85% of the chemical composition depending on the concentration of the copolymer).

In fact, in the Examples section, Casella shows the treatment having concentrations of fluoropolymer and paraffin wax together that total 85% or more of the treatment when the preferred zeta potential modifier is used. *See*, Tables 15-17. These examples do not show the fluoropolymer or the paraffin having concentrations within the presently claimed ranges, let alone the combination of these ranges. In other examples when the preferred zeta potential modifier is used, the paraffin wax concentration alone is 75%. *See*, Table 19.

In the examples where the zeta potential modifier is not used in the treatments, there is no teaching or suggestion that combining the fluoropolymer and the paraffin wax with a crosslinking composition, such as disclosed in Wang, provides any further benefit to the treatments. *See*, Tables 1-14. Moreover, in all but one of the ninety-nine examples, Casella discloses concentration values of the fluoropolymer and/or the paraffin wax that are outside of the claimed concentrations. *See*, Tables 1-19. Thus, there is no suggestion or motivation for selecting the specific fluoroalkyl acrylate copolymer concentration range of about 4.5% to about 9% from the broad range disclosed in Casella *with* the pore resistance composition range of about 0.46 to about 0.65 parts from the broad range disclosed in Casella, to combine with the broad range of crosslinking composition disclosed in Wang, to produce the claimed composition.

Wang discloses a liquid repellent treatment using a repellant fluorochemical compound with a crosslinking component, but does not disclose in the specification the ranges of concentrations used, except in the specific Examples. *See*, e.g., paragraphs 0081-0083 and 0106-0108. In all of the Examples, however, Wang discloses using a fluorinated stain repellent having a concentration of 1%, 4.0% or 5% by weight with a cross-linking agent having various concentrations ranging from 0.25% up to 4.0%. *See*, e.g., Examples 1, 2, 8, 17, 19-24 and 27. In all but one of the thirty examples, Wang discloses concentration values of the fluoropolymer and/or the cross-linking agent that are outside of the claimed concentrations. *See*, Examples 1-30. Thus, there is no suggestion or motivation for selecting the specific claimed fluoropolymer concentration range from the ranges disclosed in either Wang or Casella *with* the claimed pore resistance composition range from the broad range disclosed in Casella with the claimed crosslinking composition from the broad range disclosed in Wang, to produce the claimed composition.

Accordingly, claims 8, 28, 85 and 86, are patentable in light of the cited prior art for at

least the reasons cited above. Dependent claims 9-11, 15-17, 20-27, 29-31, 35-36 and 39-46 depend directly or indirectly from independent claims 8 and 28 and thus contain all of the limitations of the claims from which they depend. Thus, these dependent claims are patentable over the cited prior art for at least the same reasons set forth above with respect to claims 8 and 28.

Claims 9, 10, 22-24, 26, 29, 30, 41, 43 and 45 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Casella and further in view of U.S. Patent No. 6,607,994 issued to Soane et al. ("Soane"). The Examiner states that Wang and Casella are silent as to the creation of a breathable coating for use on a denim fabric and the use of a microencapsulated odor neutralizing composition on the fabric, but claims that it would have been obvious to modify the article of Wang to be a porous denim garment with a microencapsulated odor neutralizing composition as taught by Soane. However, there is no suggestion or motivation to combine Soane with Wang or Casella in the way suggested by the Examiner.

Soane discloses a treatment of textiles that includes a textile-reactive nanoparticle that contains an agent. *See*, e.g., abstract. The particles may be suspended in an aqueous solution and the garment may then be exposed to the solution containing the textile-reactive nanopartices. *See*, e.g., col. 10, line 52 - col. 11, line 9. There is no teaching or suggestion to include a fluoropolymer, pore resistance composition or a crosslinking composition in the aqueous solution that the particles are suspended in. Moreover, Casella specifically teaches away from using the claimed combination of ranges for the fluoropolymer and the paraffin wax for fabrics such as cotton, which includes denim. *See*, paragraph 0190 and Table 2. Thus, as stated above, it would not have been obvious to one skilled in the art to select the specific claimed fluoropolymer concentration range from the broad range disclosed in Casella or the range disclosed in Wang *with* the claimed pore resistance composition range from the broad range disclosed in Casella with the claimed crosslinking composition from the broad range disclosed in Wang, to produce the claimed composition. Accordingly, claims 9, 10, 22-24, 26, 29, 30, 41, 43 and 45 are patentable over the cited prior art for at least the reasons cited above.

Claims 20 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Casella and further in view of U.S. Patent No. 3,029,164 issued to Seki et al.

("Seki"). Claims 21 and 40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Casella and further in view of U.S. Patent No. 6,861,520 issued to Todd et al. ("Todd"). Claims 27 and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Casella and Soane and further in view of Todd. Claims 25, 42, 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Casella and Soane and further in view of U.S. Patent No. 6,245,693 issued to Gagliardi et al. ("Gagliardi") as evidenced by U.S. Patent No. 4,915,939 issued to Iwahashi ("Iwahashi"). As stated above, there is no suggestion or motivation to combine Wang with Casella. In addition, Seki, Todd, and Gagliardi do not disclose using a chemical composition having the recited concentrations. Since these dependent claims depend directly or indirectly from independent claims 8 and 28, these claims contain all of the limitations of the independent claims from which they depend. Thus, these dependent claims are patentable over Wang, Casella, Seki, Todd, or Gagliardi either alone or in combination, for at least the same reasons set forth above with respect to claims 8 and 28.

Claims 87, 89, 91 and 96 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Casella and Soane and further in view of Seki.

Independent claim 87 includes, among other things, a denim fabric and a chemical composition comprising a fluoroalkyl acrylate copolymer having a concentration ranging from about 4.5% to about 9% by weight of the chemical composition, a dispersed blocked polyurethane having a concentration ranging from about 0.46 to about 0.65 parts by weight for each part of the fluoroalkyl acrylate copolymer, and a crosslinking composition comprising an inorganic salt with a carboxylic acid and 2-imidazolidinone, the crosslinking composition having a concentration ranging from about 0.60 to about 0.80 parts by weight for each part of the fluoroalkyl acrylate copolymer. As stated above, there is no suggestion or motivation to combine Wang with Casella and Soane. In fact, Casella specifically teaches away from using the claimed combination of ranges for the fluoropolymer and the paraffin wax for fabrics such as cotton, which includes denim. *See*, paragraph 0190 and Table 2. Thus, claim 87, and the claims dependent therefrom, are patentable over the cited prior art for at least the same reasons set forth above with respect to claims 8 and 28, and the earlier discussion of Soane.

CONCLUSION

Enclosed is a petition for a three month extension of time. Please charge Deposit Account No. 19-4972 the required fee of $1,020.00 as set forth in 37 C.F.R. §1.17(a)(3). Also, enclosed is a Request for Continued Examination. Please charge Deposit Account No. 19-4972 the required fee of $790.00. Please apply any additional charges or credits to Deposit Account No. 19-4972.

All the claim rejections have been addressed and all of the pending claims are allowable for the reasons stated and others. Reconsideration of the application and issuance of a notice of allowance are respectfully requested. Applicants request that the Examiner conduct a telephonic interview with the undersigned, if it will assist examination of the pending claims.

Respectfully submitted,

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